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**NAVY PUBLIC WORKS CENTER
NORFOLK, VIRGINIA
UTILITIES DEPARTMENT**

STANDARD OPERATING PROCEDURE / JOB HAZARD ANALYSIS

TITLE
REPAIR AIR COMPRESSOR OF
34.5 KV OCB/SF6 CIRCUIT BREAKER

PROCEDURE NUMBER
WC 622 HVE 022

DISTR:
601A
610
620
WC 622
WC 624

SIGNED: _____
(DATE)

APPROVED: _____
(DATE)

SAFETY PROFESSIONAL: _____
(DATE)

MANAGEMENT OFFICIAL: _____
(DATE)

DATE: _____

REVISION DATE: _____

REPAIR AIR COMPRESSOR OF 34.5 KV OCB/SF6 CIRCUIT BREAKER

Purpose:

Procedure to replace an air compressor drive belt on a 34.5 kv oil, or SF6, circuit breaker.

Potential Energy Sources:

1. High pressure air
2. 120/240 AC control voltages
3. 125 DC control voltage
4. Breaker Operating Mechanism

Tools and PPE:

Tools: Various hand tools. PPE: Safety shoes, hard hat, safety glasses, and work gloves.

References:

1. PWC Occupational Safety and Health Program Manual, PWCNORVAINST 5100.33E
2. Occupational Safety and Health Standards for General Industry (29 CFR PART 1910): Subpart I, Personnel Protective Equipment

Procedures:

1. Tag out breaker control handle located in the switchyard, or substation, control house. Follow SOP WC 622 013, Deenergize, Lockout, Tagout.
2. Secure the control voltages in the breaker's control cabinet. The AC and DC power to the breaker controls, the heaters, and the air compressor should be turned off.
3. Bleed the air pressure from the air compressor's air receiver located in the breaker control enclosure.
4. If the breaker is in the closed position, insert the blocking pin in the breaker's trip mechanism as per manufacture's instructions.
5. Remove compressor mounting bolts and remove the compressor and it's drive belt.
6. Drain, and retain if in good condition, the compressor oil. Perform the necessary repair work on the unit as per manufacture's instructions.
7. Place oil in compressor. Use old oil or, if the old oil is in poor condition use new oil. Fill oil to proper level as per manufacture's instructions.
8. Reinstall the compressor and drive belt. Adjust drive belt to proper tension.
9. Close the air receiver's bleed down valve.

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10. Reenergize the breaker's controls, AC and DC; heaters; and air compressor.

11. Observe that the air compressor cuts on and charges the pneumatic system to the proper air pressure.

12. Remove the blocking pin from the breaker's trip mechanism.

13. Following SOP WC HVE 013, remove the Danger Hold tag to place the breaker back in service.

END